82365 PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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| In Re U.S. Patent Application | | ) |
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| Applicant: | Jurij BESHENAR and | ) |
| | Dr. Mathias HELLWIG | ) |
| | | ) |
| Serial No.: | Not Yet Assigned | ) |
| | | ) |
| Filed: | Herewith | ) |
| | | ) |
| For: | **DATA TRANSMISSION MEMORY** | ) |

**PRELIMINARY AMENDMENT**

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

This is a Preliminary Amendment for entry in the above-identified application.

In the Specification:

Please substitute the enclosed substitute specification for that currently on file. A marked up copy is also attached.

In the Claims:

Please amend claims as follows:

3. (amended) The method as claimed in claim 1, wherein the number of date memory cells contained in the data memory block corresponds to the number of subscribers.

4. (amended) The method as claimed in claim 1, in which, in a reception operating mode, reception data packets are received from various source subscribers via a reception data bus and are stored in data memory cells of a data memory block addressed by the subscriber-pointer address list.

5. (amended) The method as claimed in claim 1, in which, in a transmission operating mode, output data packets are in each case read out from a data memory block and sent to the associated destination subscriber via an output data bus.

6. (amended) The method as claimed in claim 1, in which each reception data packet contains destination information data for identifying that destination subscriber for which the reception data packet is intended.

7. (amended) The method as claimed in claim 1, in which the memory size of a data memory cell corresponds to the size of an input data packet and the memory size of a data memory block preferably corresponds to the size of an output data packet.

8. (amended) The method as claimed in claim 1, in which the state of each chained subscriber-pointer address list is stored in a subscriber state register (12).

9. (amended) The method as claimed in claim 1, in which, in the subscriber state register (12), a beginning address pointer to the last data block, the number of data memory blocks and the filling level of the last data block are stored.

10. (amended) The method as claimed in claim 1, in which a pointer address list of the free pointer addresses is stored in the pointer address memory (2), so that the pointer address memory (2) forms a reproduction of the data memory (3).

11. (amended) The method as claimed in claim 1, in which, in the reception operating mode, the last received reception data packet is written according to the stored filling state into the next free memory cell of the last data memory block of the destination subscriber, identified by the reception data packet.

12. (amended) The method as claimed in claim 1, in which, after the reception data packet has been written into the last data memory block of the destination subscriber, the filling state is incremented in the associated state register (12).

13. (amended) The method as claimed in claim 1, in which the chained subscriber-pointer address list of the destination subscriber is extended by adding a chained address pointer for the addressing of a further data memory block if all the memory cells of the last data memory block of the destination subscriber are filled after the writing operation.

14. (amended) The method as claimed in claim 1, in which, in the transmission operating mode, the first date memory block of the destination subscriber is sent as an output data packet.

15. (amended) The method as claimed in claim 1, in which, after the first data memory block has been sent, the chained subscriber-pointer address list of the destination subscriber is shortened by removing the beginning address pointer, pointing to the first data block.

16. (amended) The method as claimed in claim 1, in which the reception operating mode for writing reception data packets into the data transmission memory (1) has priority over the transmission operating mode for sending output data packets from the data transmission memory (1).

20. (amended) The data transmission memory as claimed in claim 17, wherein the memory controller (4) is connected to source subscribers via a reception data bus and to destination subscribers via a transmission data bus.

21. (amended) The data transmission memory as claimed in claim 17, wherein the transmission data bus and reception data bus are bidirectional buses for bidirectional data transmission.

22. (amended) The data transmission memory as claimed in claim 17, wherein the buses are Ethernet buses.

Respectfully submitted,

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**Version with markings to show changes made**

3. (amended) The method as claimed in claim 1[or 2], wherein the number of date memory cells contained in the data memory block corresponds to the number of subscribers.

4. (amended) The method as claimed in claim 1 [one of the preceding claims], in which, in a reception operating mode, reception data packets are received from various source subscribers via a reception data bus and are stored in data memory cells of a data memory block addressed by the subscriber-pointer address list.

5. (amended) The method as claimed in claim 1 [one of the preceding claims], in which, in a transmission operating mode, output data packets are in each case read out from a data memory block and sent to the associated destination subscriber via an output data bus.

6. (amended) The method as claimed in claim 1 [one of the preceding claims], in which each reception data packet contains destination information data for identifying that destination subscriber for which the reception data packet is intended.

7. (amended) The method as claimed in claim 1 [one of the preceding claims], in which the memory size of a data memory cell corresponds to the size of an input data packet and the memory size of a data memory block preferably corresponds to the size of an output data packet.

8. (amended) The method as claimed in claim 1 [one of the preceding claims], in which the state of each chained subscriber-pointer address list is stored in a subscriber state register (12).

9. (amended) The method as claimed in claim 1 [one of the preceding claims], in which, in the subscriber state register (12), a beginning address pointer to the last data block, the number of data memory blocks and the filling level of the last data block are stored.

10. (amended) The method as claimed in claim 1 [one of the preceding claims], in which a pointer address list of the free pointer addresses is stored in the pointer address memory (2), so that the pointer address memory (2) forms a reproduction of the data memory (3).

11. (amended) The method as claimed in claim 1 [one of the preceding claims], in which, in the reception operating mode, the last received reception data packet is written according to the stored filling state into the next free memory cell of the last data memory block of the destination subscriber, identified by the reception data packet.

12. (amended) The method as claimed in claim 1 [one of the preceding claims], in which, after the reception data packet has been written into the last data memory block of the destination subscriber, the filling state is incremented in the associated state register (12).

13. (amended) The method as claimed in claim 1 [one of the preceding claims], in which the chained subscriber-pointer address list of the destination subscriber is extended by adding a chained address pointer for the addressing of a further data memory block if all the memory cells of the last data memory block of the destination subscriber are filled after the writing operation.

14. (amended) The method as claimed in claim 1 [one of the preceding claims], in which, in the transmission operating mode, the first date memory block of the destination subscriber is sent as an output data packet.

15. (amended) The method as claimed in claim 1 [one of the preceding claims], in

which, after the first data memory block has been sent, the chained subscriber-pointer address list of the destination subscriber is shortened by removing the beginning address pointer, pointing to the first data block.

16. (amended) The method as claimed in claim 1 [one of the preceding claims], in which the reception operating mode for writing reception data packets into the data transmission memory (1) has priority over the transmission operating mode for sending output data packets from the data transmission memory (1).

20. (amended) The data transmission memory as claimed in claim 17 [one of the preceding claims], wherein the memory controller (4) is connected to source subscribers via a reception data bus and to destination subscribers via a transmission data bus.

21. (amended) The data transmission memory as claimed in claim 17 [one of the preceding claims], wherein the transmission data bus and reception data bus are bidirectional buses for bidirectional data transmission.

22. (amended) The data transmission memory as claimed in claim 17 [one of the preceding claims], wherein the buses are Ethernet buses.